



UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/159,817 09/23/98 WESEL E PD-980189

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HUGHES ELECTRONICS CORPORATION
PATENT DOCKET ADMINISTRATION
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EXAMINER

GESESSE, T

ART UNIT	PAPER NUMBER
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2746

DATE MAILED: 10/03/00

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/159,817

Applicant(s)
Ellen K. Wesel

Examiner
Gesesse, Tilahun

Group Art Unit
2746



☒ Responsive to communication(s) filed on Sep 23, 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-30 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-10 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☒ Claims 11-30 are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 5 and 6

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Election/Restriction

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-10, drawn to a satellite spotting at land mass , claissified in class 455 subclass 12.1
 - II. Claims 11-21, drawn to a portable antenna structure, classified in class 455, subclass 90.
 - III. Claims 22-30, drawn to a switch detail within the satellite , classified in class 455, subclass 428.
3. The inventions are distinct, each from the other because of the following reasons:

Inventions group II and group III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions to the plurality of satellites generating plurality of beams spotting combined coverage area of land mass .

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4. During a telephone conversation with Vijayalakshmi D. Duraiswamy on 09/20/00 a provisional election was made to group I claims 1-10 without traverse to prosecute the invention of plurality of satellites generating plurality of beams spotting plurality of land mass , claims 1-10. Affirmation of this election must be made by applicant in replying to this Office action. Claims 11-30 would be withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 5-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Rouffet et al (US 5,410,731).

As per claims 1, 5-7, Rouffet et al disclose a satellite system (a direct television broadcasting satellite facility) operating over a land mass, see fig.1,

a first satellite (S1) generating a first plurality of spot beams directed at said land mass (F1,F2), said first set of spot beams (F1, F'1) partially covering said land mass(coverage area T1),

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a second satellite (S2) generating a second plurality of spot beams (F'1 and F'2); said first plurality of spot beams and said second plurality of spot beams in combination provide substantially ubiquitous coverage over the land mass, see fig.1).

As per claims 8-10, Rouffet et al disclose at least one of said plurality of beam portions being independently adjustable in response to a condition (five others are used via beam F2 as backup channels for area T2, and can therefore, retransmit all or any of the five channels C6 to C10 --- the last two amplifiers, which may be omitted in another configuration but which are very useful when the facility reaches middle age as is explained below, may be used as redundancy for tubes or channels so as to make up for failure in the beam F1 or even in the backup beam F2, see col. 3 lines 8-41.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rouffet et al (US 5,410,731) in view of Lynch (US 6,002,916).

As per claims 2-3 , Rouffet et al fail to disclose MEO and GEO/IGSO group of satellites. However, Lynch discloses the server satellites are preferably positioned in a clarke or

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geosynchronous earth orbit (GEO) and in a medium earth orbit (MEO) or low earth orbit(LEO) or any combination of GEO,MEO or LEO, see col. 5 lines 24-28. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Rouffet in teaching MEO and GEO group satellites, in order to communicate at different elevation of the earth depending on the coverage of land mass and density of users in the area.

As per claim 4, Rouffet et al fails to disclose the spot beams are K band. However , Lynch discloses telemetry and control data is communicated across the up/down link using RF unified Ka-band (or S-band as an option) comm link, see col. 7 ln 2-4. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Rouffet in utilizing Ka band in the data communication, as disclosed by Lynch , in order to transmit data with a high data rate spot beam.

Conclusion

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 305-9508 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tilahun Gesesse whose telephone number is (703) 308-5873.. The examiner can normally be reached on Monday-Thursday from 6:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang, can be reached on (703) 305-4895 The fax phone number for this Group is (703) 308-6306 or (703) 308-6296.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Sept. 23, 2000

Tilahun Gesesse


EDWARD F. URBAN
PRIMARY EXAMINER